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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/686,557

10/16/2003

Kiyohiro Akiyama

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22428 7590 01/09/2007

FOLEY AND LARDNER LLP

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3000 K STREET NW

WASHINGTON, DC 20007

EXAMINER

NEGRON, ISMAEL

ART UNIT

PAPER NUMBER

2875

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/686,557	AKIYAMA, KIYOHIRO	
	Examiner	Art Unit	
	Ismael Negron	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-7 and 9-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 3-7 and 18 is/are allowed.
- 6) ☒ Claim(s) 9, 14-16 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 10-12 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Response to Amendment

2. Applicant's amendment filed on October 25, 2006 has been entered. Claims 9 and 19 have been amended. No claim has been cancelled. Claims 20 and 21 have been added. Claims 1, 3-7 and 9-21 are still pending in this application, with claims 1, 9, 18 and 19 being independent.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 9, 13-16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by ITO et al. (U.S. Pat. 6,234,646).

4. ITO et al. discloses a vehicle lighting unit having:

- **a light emitting diode (as recited in claims 9 and 19), Figure 4, reference number 2a;**
- **the light emitting diode (LED) emitting light (as recited in claims 9 and 19), inherent;**
- **a lamp lens (as recited in claims 9 and 19), Figure 4, reference number 5;**
- **the lamp lens having a light emission area (as recited in claims 9 and 19), inherent;**
- **a plurality of reflection surfaces (as recited in claims 9 and 19), Figure 4, reference number 3a;**
- **the reflection surfaces reflecting the light emitted by the LED (as recited in claims 9 and 19), as seen in Figure 4;**
- **a plurality of mirror finished surfaces (as recited in claims 9 and 19), Figure 4, reference number 3b;**
- **the mirror finished surfaces being arranged to not reflect light from the LED, but reflect outside light incident from the lamp lens (as recited in claims 9 and 19), as evident by Figure 4;**
- **an inner housing (as recited in claims 9 and 19), Figure 4, reference number 3;**

- **the inner housing having an inner surface facing the light emission area (as recited in claims 9 and 19), Figure 4, reference numbers 3a and 3b;**
- **the reflection surfaces and the mirror finished surfaces being alternately provided over the inner surface of the inner housing (as recited in claims 9 and 19), as seen in Figure 4;**
- **the reflection surfaces being arranged mostly in within a range of an illumination angle of the LED (as recited in claims 9 and 19), as seen in Figure 4;**
- **each of the reflection surfaces being a part of a rotational paraboloid (as recited in claims 9 and 19), inherent, as evidenced by the parallel ray output seen in Figure 4;**
- **the paraboloid of the reflection areas having a focus on a light emission source of the first LED such that the paraboloids corresponding to the reflection surfaces that are farther from the LED have longer focal lengths (as recited in claims 9 and 19), inherent, as evidenced by the parallel ray output seen in Figure 4;**
- **each of the mirror finished surfaces being arranged on a segment that connects the light emission source of the LED to one of boundaries between the reflection surfaces and the**

mirror finished surfaces (as recited in claims 9 and 19), as evidenced by Figure 4;

- **a plurality of LED (as recited in Claim 13), as seen in Figure 3;**
- **each of the LED and the reflection surfaces are integrated into an arrangement (as recited in Claim 13), as evidenced by Figure 3;**
- **a plurality of the arrangements, wherein each of the arrangement is positioned at a different location in a light reflection direction of the reflection surfaces (as recited in Claim 13), as seen in Figure 3;**
- **a 0 degree axis of the LED being inclined toward a first reflection surfaces-side relative to an optical axis of the first reflection surfaces (as recited in Claim 14), as seen in Figure 4;**
- **the surfaces having different optical axis directions (as recited in Claim 15), as seen in Figure 4;**
- **each of the reflection surfaces being divided into a plurality of reflection surfaces (as recited in Claim 16), as seen in Figure 4;**
- and
- **each of the mirror finished surfaces being arranged on a side opposite to a light reflection direction of the reflection surfaces from the segment (as recited in claims 20 and 21), as evidenced by Figure 4.**

Allowable Subject Matter

5. Claims 1, 3-7 and 18 are allowed
6. Claims 10-12 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The following is a statement of reasons for the indication of allowable subject matter:

Applicant teaches a vehicle lamp including first and second light emitting diodes arranged at different locations, a lamp lens, and a reflector having a plurality of alternate paraboloid first and second reflection sections, each section reflecting light from a respective one of the LED toward a same output direction. A linear Fresnel lens is located between each LED and the corresponding reflection surface, the Fresnel lens mostly transmitting the light from the LED in a cross section including the reflective surfaces, while refracting the light from such LED as almost parallel light in a cross section orthogonal to the light reflection direction of the respective surfaces. In a second embodiment, the lamp lens includes outer and inner lenses; with the inner lens, including a plurality of alternatively provided concave and convex portions corresponding to the ranges in which reflected light from the reflection surfaces are incident. A third embodiment features only the first LED, and the second reflective surfaces are arranged to not reflect light from the LED, but to reflect outside light

incident from the lamps lens. The third embodiment also includes a linear Fresnel lens. A fourth embodiment also includes the claimed outer and inner lenses.

8. No prior art was found teaching individually, or suggesting in combination, all of the features of the applicants' invention, specifically the claimed linear Fresnel lens structure or the claimed inner lens, in combination with the other recited structural limitations of the claimed Vehicle lamps.

Response to Arguments

9. Applicant's arguments filed October 25, 2006 have been fully considered but they are not persuasive.

10. Regarding the Examiner's rejection of claims 9 and 19 under 35 U.S.C. 102(b) as anticipated by ITO et al. (U.S. Pat. 6,234,646), the applicant argues that the cited reference fails to disclose all the features of the claimed invention, specifically each of the mirror finished surfaces being arranged on a segment connecting the light emission source of the LED to one of the boundaries between the reflection surfaces and the mirror finished surfaces, or the mirror finished surfaces being arranged so as to not reflect light emitted by the LED but to reflect light incident from the lamp lens.

11. Regarding the Examiner's rejection of claims 13-16 under 35 U.S.C. 102(b) as anticipated by ITO et al. (U.S. Pat. 6,234,646), the applicant presents no arguments,

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except stating that such claims depend directly or indirectly from independent Claim 9 and would be allowable when/if the independent claim is allowed.

12. In response to applicant's arguments that ITO et al. failed to disclose individually the mirror finished surfaces being arranged on a segment connecting the light emission source of the LED to one of the boundaries between the reflection surfaces and the mirror finished surfaces, the applicant is respectfully advised that while the claims of issued patents are interpreted in light of the specification, prosecution history, prior art and other claims, this is not the mode of claim interpretation to be applied during examination. During examination, the claims must be interpreted as broadly as their terms reasonably allow. *In re American Academy of Science Tech Center*, 70 USPQ2d 1827 (Fed. Cir. May 13, 2004).

In this case, as detailed in section 3 of the Final Action (mailed August 4, 2006), ITO et al. discloses a vehicle lighting unit 1 including an inner housing 3, such inner housing 3 formed by a plurality of alternating paraboloid reflective portions 3a and 3b. Reflective portions 3a are arranged in such a manner as to reflect light from the LED 2a in a direction parallel to an axis P. Reflective portions 3b are **generally** arranged on a segment connecting the light emission source to one of the boundaries between the reflection reflective portions 3a and 3b. Such arrangement was considered to broadly meet the claimed limitations as reflective portion 3b could not be arranged on the cited segment per se, since such reflective portion 3b are not a flat, but paraboloidal. In addition, it is noted that the mirror finished surfaces are claimed as arranged on the

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cited segment, not as being formed by such segment; the reflective portions 3b of ITO et al. could broadly be considered to be arranged on segment connecting the light emission source to one of the boundaries between the reflection reflective portions 3a and 3b, while not formed by such segment.

13. In response to applicant's surprising argument that ITO et al. failed to disclose individually the mirror finished surfaces being arranged so as to not reflect light emitted by the LED but to reflect light incident from the lamp lens, the applicant is once again respectfully advised that while the claims of issued patents are interpreted in light of the specification, prosecution history, prior art and other claims, this is not the mode of claim interpretation to be applied during examination. During examination, the claims must be interpreted as broadly as their terms reasonably allow. *In re American Academy of Science Tech Center*, 70 USPQ2d 1827 (Fed. Cir. May 13, 2004).

In this case, as detailed in section 3 of the Final Action (mailed August 4, 2006), ITO et al. discloses a vehicle lighting unit 1 including an inner housing 3, such inner housing 3 formed by a plurality of alternating paraboloid reflective portions 3a and 3b. Reflective portions 3a are arranged in such a manner as to reflect light from the LED 2a in a direction parallel to an axis P. Reflective portions 3b are arranged so as to not reflect light from the LED. Both the reflective portions 3a and 3b are capable of reflecting outside light incident on the inner housing 3 from the lamp lens 5, as evidenced by Figure 4.

While the applicant might be correct in stating that the reflective portions 3b of ITO et al. do reflect light from LED 2b, it is also a fact that the do not reflect light from LED 2a. The instant invention, as defined by the claims, recites one light emitting diode (emphasis added) with the mirror-finished surfaces arranged so as to not reflect light from such one light emitting diode. As the applicant will surely agree, the reflective portions 3b of ITO el. do meet the claimed limitations of not reflecting light from such the LED 2a, their reflection of light from LED 2b being irrelevant, as such LED 2b is not part of the claimed invention.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ismael Negrón whose telephone number is (571) 272-2376. The examiner can normally be reached on Monday-Friday from 9:00 A.M. to 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea, can be reached on (571) 272-2378. The facsimile machine number for the Art Group is (571) 273-8300.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

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information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, go to <http://pair-direct.uspto.gov>. Should you have questions on access to Private PAIR system, contact the Electronic Business Center (EBC) toll-free at 866-217-9197.



Ismael Negrón
Examiner
AU 2875